

conductor 60 from a stable conductor, such as ground conductor 44, to a position adjacent to conductor 52.

Replace the paragraph on page 7, lines 3-8 with the following paragraph:

B1
A method for routing one or more critical conductors in an integrated circuit design is disclosed, including the steps of determining the number of critical conductors requiring placement into preferred track locations, wherein a preferred track location is defined as any track location immediately adjacent to a constant voltage conductor, determining the number of preferred track locations available in said integrated circuit design, and routing one or more critical conductors into one or more preferred track locations.

Replace the paragraph on page 8, lines 6-7 with the following paragraph:

B2
FIG. 6 is a side view of a bit slice of an integrated circuit showing preferred tracks for the placement of critical conductors.

[Replace the paragraph on page 8, line 9 with the following paragraph:]

FIG. 7 is a flow chart showing the acts performed by the processes of a method of the present invention.

Replace the paragraph on page 8, line 18-page 9, line 2 with the following paragraph:

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In this disclosure, a constant voltage conductor shall generally refer to a conductor which does not change state. The examples used in this disclosure of constant voltage conductors are power and ground. However, those of ordinary

B3 cond. skill in the art will readily recognize that other constant voltage conductors fitting this description exist in the art.

Replace the paragraph on page 9, lines 7-11 with the following paragraph:

B4 Referring to FIG. 5, noisy conductor 54 is placed as previously seen in FIG 3. However, critical conductor 62 is a conductor which is sensitive to inductive or capacitive coupling from an adjacent noisy conductor. Noisy conductor 64 although adjacent to conductor 62 does not inductively couple to conductor 62 due to the "quieting" influence on conductor 62 by ground conductor 44.

[Replace the paragraph on page 9, lines 13-18 with the following paragraph:]

Because integrated circuits are constructed using multiple metal layers, the quieting influence on a critical conductor by a constant voltage conductor is not restricted to a single metal layer. Therefore, so long as a critical conductor needing a quieting influence is designed to be placed at a track location immediately adjacent to a constant voltage conductor, the effects of the quieting influence of the constant voltage conductor may be felt.

Replace the paragraph on page 10, lines 1-2 with the following paragraph:

FIG. 6 is a side view of a bit slice of an integrated circuit showing preferred tracks for the placement of critical conductors.

B5 [Replace the paragraph on page 10, lines 5-9 with the following paragraph:]

Referring to FIG. 6, bit slice 70 includes two metal layers 72 and 74, with each of layers 72 and 74 including one or more constant voltage conductors, such

as a power conductor 42 and a ground conductor 44. According to one embodiment of the present invention, "quiet" locations for the placement of sensitive conductors include tracks 76a through 76h. These tracks are all immediately adjacent to constant voltage.

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[Replace the paragraph on page 10, lines 11-17 with the following paragraph:]

Tracks such as track 76a, which are immediately adjacent to more than one constant voltage conductor, are considered to be especially quiet, due to the increased coupling to more than one constant voltage conductor. Therefore, tracks 76a, 76c, 76f and 76g are especially quiet, and should be utilized for placement of the most critical conductors, as determined by the IC designer. An IC may have four or more metal layers, providing for potential quiet tracks above, below, left, and right of a given constant voltage conductor.

Replace the paragraph on page 11, lines 4-11 with the following paragraph:

Bk

Referring to FIG. 7, the method begins at block step 80 wherein the signal conductors which need a quieting influence in which to operate are prioritized. At this step, if a given design is known to have fewer critical lines than preferred tracks to place them, all sensitive conductors may be routed into a preferred location. Alternatively, a designer may rank each critical conductor in order of its importance relative to other sensitive conductors. In this alternative case, conductors are routed according to their rank, thus ensuring that the more highly ranked conductors are placed in quiet track locations.

Replace the paragraph on page 11, lines 13-16 with the following paragraph:

B7
At block 82, it is determined how many preferred tracks exist in the present design. At this step, the analyzer may alternatively rank the preferred tracks, ranking the tracks which are immediately adjacent to two constant voltage conductors higher than tracks which are immediately adjacent to a single constant voltage conductor.

Replace the paragraph on page 12, lines 1-9 with the following paragraph:

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At block 84, the analyzer routes critical conductors into tracks previously designated at step 82. If, at step 80, the designer had ranked sensitive conductors according to the desirability of placing them in a constant voltage location, the analyzer routes the higher ranked conductors first. If, at step 82, the analyzer had ranked the preferred tracks according to whether any given preferred track had one, two, or more adjacent constant voltage conductors, the analyzer, at step 84, places the most highly ranked critical conductor at the most preferred location. The analyzer then places the next highest ranked critical conductor at the next most preferred track location, and so on, until all ranked conductors have been placed.

[Replace the paragraph on page 12, lines 11-12 with the following paragraph:]

At block 86, the analyzer routes any conductors not already routed into the remaining track locations.
